Claims

Claim 1 A method for training or testing vision, comprising the following steps:

creating a three-dimensional environment including at least two objects of shape, including a first object and a second object, situated before a background;

wherein the space between the first and second object is beyond the horizontal angular extent an individual is able to foveate using attentive vision;

positioning the first object and the second object to produce either movement cues, color cues or depth cues; and

viewing the first and second object with the left eye and the first and second object with the right eye using pre-attentive vision and studying the response of an individual thereto.

Claim 2 The method according to Claim 1 wherein the horizontal angular extent between the first and second object is at least 2 degrees of the entire field width viewed by the individual.

Claim 3 The method according to Claim 1, wherein the first and second object are positioned to produce depth cues by varying the depth range difference between the first object and the second object.

Claim 4 The method according to Claim 1, further including the step of using an audible sound, unique smell or specific touch sensation to alert the individual to a correct response.

Claim 5 The method of Claim 3, wherein the depth cues are provided within a range of the pre-attentive depth perception limit.

Claim 6 The method of Claim 5, wherein the pre-attentive depth perception limit is approximately 3 arcmin.

Claim 7 The method of Claim 3, further including the step of varying the textural contrast between the background and the first and second objects.

Claim 8 The method according to Claim 7, wherein the step of varying includes varying textural spatial frequency.

Claim 9 The method of Claim 7, wherein the step of varying includes varying color composition.

Claim 10 The method of Claim 7, wherein the step of varying includes varying edge fidelity.

Claim 11 The method according to Claim 7, wherein the step of varying includes varying electronic signal noise.

Claim 12 The method according to Claim 1, further including the step of varying the textural contrast between the background and the first and second objects.

Claim 13 The method according to Claim 1, wherein the background includes varying the textural positioning of features within said background.

Claim 14 The method according to Claim 1, wherein the method is applied in the treatment of dyslexia.

Claim 15 The method of Claim 14, wherein the step of studying includes creating, positioning and viewing to teach individuals to utilize pre-attentive vision in reading.

Claim 16 The method of Claim 14, wherein pre-attentive vision is used to calibrate the attentive vision of the foveal region.

Claim 17 The method according to Claim 14, wherein the first and second object are similarly shaped but orientated differently.

Claim 18 The method according to Claim 14, wherein depth and color cues are applied.